C L A I M S

<u>What is claimed is</u>:

1. A communication terminal device having an error correction function defined in ITU-T Recommendations T.30, comprising:

a modem that can transmit data to a remote device in accordance with a plurality of modulation methods and communication speeds; and

a controller for changing a current modulation method of the modem to a different modulation method when an all-frame-error is detected predetermined times during data transmission, and for maintaining the current modulation method and reducing a communication speed when a frame error other than the all-frame-error is detected prescribed times.

2. The communication terminal device as in claim 1 further including a memory for storing a plurality of modem capability levels, each level being defined by a modulation method and a communication speed, and wherein the controller changes a current modem capability level to an inferior one when changing the current modulation method to a different one.

3. The communication terminal device as in claim 1 further including a memory for storing a plurality of modem capability levels, each level being defined by a modulation method and a communication speed, and wherein the controller degrades the modulation method and changes a current modem capability level to an inferior one when the frame error other than the all-frame-error is detected the prescribed times but there is no slower communication speed than a current communication speed.

4. The communication terminal device as in claim 1, wherein the

plurality of modulation methods include ITU-T Recommendations V.17, V.29 and V.27ter.

5.   The communication terminal device as in claim 2, wherein the plurality of modem capability levels include a first level of V.17 modulation method and 14.4kbps communication speed, a second level of V.17 modulation method and 12.0kbps communication speed, a third level of V.17 modulation method and 9.6kbps communication speed, a fourth level of V.17 modulation method and 7.2kbps communication speed, a fifth level of V.29 modulation method and 9.6kbps communication speed, a sixth level of V.29 modulation method and 7.2kbps communication speed, a seventh level of V.27ter modulation method and 4.8kbps communication speed, and an eighth level of V.27ter modulation method and 2.4kbps communication speed in the order from the highest level to the lowest.

6.   The communication terminal device as in claim 3, wherein the plurality of modem capability levels include a first level of V.17 modulation method and 14.4kbps communication speed, a second level of V.17 modulation method and 12.0kbps communication speed, a third level of V.17 modulation method and 9.6kbps communication speed, a fourth level of V.17 modulation method and 7.2kbps communication speed, a fifth level of V.29 modulation method and 9.6kbps communication speed, a sixth level of V.29 modulation method and 7.2kbps communication speed, a seventh level of V.27ter modulation method and 4.8kbps communication speed, and an eighth level of V.27ter modulation method and 2.4kbps communication speed in the order from the highest level to the lowest.

7.   The communication terminal device as in claim 2, wherein the controller changes the modem capability level to a nearest inferior level.

8. The communication terminal device as in claim 3, wherein the controller changes the modem capability level to a nearest inferior level.

9.   A communication method having an error correction function defined in ITU-T Recommendations T.30, comprising the steps of:

A) changing a current modulation method of a modem to a different modulation method when an all-frame-error is detected predetermined times during data transmission; and

B) maintaining the current modulation method and reducing a communication speed when a frame error other than the all-frame-error is detected prescribed times.

10.   The communication method as in claim 9 further including the steps of:

C) storing a plurality of modem capability levels, each level defined by a modulation method and a communication speed; and

D) changing a current modem capability level to an inferior one when changing the current modulation method to a different one.

11.   The communication method as in claim 9 further including the steps of:

C) storing a plurality of modem capability levels, each level being defined by a modulation method and a communication speed; and

D) degrading the modulation method and changing a current modem capability level to an inferior one when the frame error other than the all-frame-error is detected the prescribed times but there is no slower communication speed than a current communication speed.

12.   The communication method as in claim 9, wherein the modulation method is ITU-T Recommendations V.17, V.29 or V.27ter.

13. The communication method as in claim 10, wherein the plurality of modem capability levels include a first level of V.17 modulation method and 14.4kbps communication speed, a second level of V.17 modulation method and 12.0kbps communication speed, a third level of V.17 modulation method and 9.6kbps communication speed, a fourth level of V.17 modulation method and 7.2kbps communication speed, a fifth level of V.29 modulation method and 9.6kbps communication speed, a sixth level of V.29 modulation method and 7.2kbps communication speed, a seventh level of V.27ter modulation method and 4.8kbps communication speed, and an eighth level of V.27ter modulation method and 2.4kbps communication speed in the order from the highest level to the lowest.

14. The communication method as in claim 11, wherein the plurality of modem capability levels include a first level of V.17 modulation method and 14.4kbps communication speed, a second level of V.17 modulation method and 12.0kbps communication speed, a third level of V.17 modulation method and 9.6kbps communication speed, a fourth level of V.17 modulation method and 7.2kbps communication speed, a fifth level of V.29 modulation method and 9.6kbps communication speed, a sixth level of V.29 modulation method and 7.2kbps communication speed, a seventh level of V.27ter modulation method and 4.8kbps communication speed, and an eighth level of V.27ter modulation method and 2.4kbps communication speed in the order from the highest level to the lowest.

15. The communication method as in claim 10, wherein the modem capability level is changed to a nearest inferior level in the step D.

16. The communication method as in claim 11, wherein the modem capability level is changed to a nearest inferior level in the step D.

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17. A communication terminal device having an error correction function defined in ITU-T Recommendations T.30, comprising:

first means for transmitting data to a remote device in accordance with a plurality of modulation methods and communication speeds; and

second means for changing a current modulation method of the first means to a different modulation method when an all-frame-error is detected predetermined times during data transmission, and for maintaining the current modulation method and reducing a communication speed when a frame error other than the all-frame-error is detected prescribed times.

18. The communication terminal device as in claim 17 further including third means for storing a plurality of modem capability levels, each level being defined by a modulation method and a communication speed, and wherein the second means changes a current modem capability level to an inferior one when changing the current modulation method to a different one.

19. The communication terminal device as in claim 17 further including third means for storing a plurality of modem capability levels, each level being defined by a modulation method and a communication speed, and wherein the second means degrades the modulation method and changes a current modem capability level to an inferior one when the frame error other than the all-frame-error is detected the prescribed times but there is no slower communication speed than a current communication speed.

20. The communication terminal device as in claim 17, wherein the plurality of modulation methods include ITU-T Recommendations V.17, V.29 and V.27ter.

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21.   The communication terminal device as in claim 18, wherein the plurality of modem capability levels include a first level of V.17 modulation method and 14.4kbps communication speed, a second level of V.17 modulation method and 12.0kbps communication speed, a third level of V.17 modulation method and 9.6kbps communication speed, a fourth level of V.17 modulation method and 7.2kbps communication speed, a fifth level of V.29 modulation method and 9.6kbps communication speed, a sixth level of V.29 modulation method and 7.2kbps communication speed, a seventh level of V.27ter modulation method and 4.8kbps communication speed, and an eighth level of V.27ter modulation method and 2.4kbps communication speed in the order from the highest level to the lowest.

22.   The communication terminal device as in claim 19, wherein the plurality of modem capability levels include a first level of V.17 modulation method and 14.4kbps communication speed, a second level of V.17 modulation method and 12.0kbps communication speed, a third level of V.17 modulation method and 9.6kbps communication speed, a fourth level of V.17 modulation method and 7.2kbps communication speed, a fifth level of V.29 modulation method and 9.6kbps communication speed, a sixth level of V.29 modulation method and 7.2kbps communication speed, a seventh level of V.27ter modulation method and 4.8kbps communication speed, and an eighth level of V.27ter modulation method and 2.4kbps communication speed in the order from the highest level to the lowest.

23.   The communication terminal device as in claim 18, wherein the second means changes the modem capability level to a nearest inferior level.

24.   The communication terminal device as in claim 19, wherein the second means changes the modem capability level to a nearest

inferior level.